

# Unit 9, Professional Engineers 2022 Salary Survey

Report to the  
Governor and  
Legislature

Published March 2023



# Table of Contents

Overview .....	2
Table 1: Survey Results .....	2
Methodology.....	3
Memorandum of Understanding Survey Requirement.....	3
State of California’s Benchmark Job Classifications .....	3
Survey Lag Calculation .....	4
Table 2: Simplified Illustration of Survey Lag Calculation.....	4
Lag Calculation Anomalies .....	5
Survey Results .....	6
Salary Lag for Entry, Journey, and First Level Supervisors.....	6
Table 3: Display of Survey Lags .....	6
Attachment 1 .....	7
Attachment 2 .....	8
Attachment 3 .....	11

# Overview

This salary survey report is prepared by the Department of Human Resources (CalHR) as required by the Memorandum of Understanding (MOU) between the state and the Professional Engineers in California Government (PECG).

The Department and PECG jointly completed the 2022 Unit 9 salary survey. Although the current MOU requires this survey to be completed, it also states that salary increases for Unit 9 employees as a result of a lag in the survey, “shall not be provided during the term of this MOU.”

The survey results indicate that the state lags behind in maximum base pay for its engineers. The table below illustrates the lag for each working level.

**Table 1: Survey Results**

Level of Work	State Lag
Entry Level	2.6%
Journey Level	3.8%
First Level Supervisor	1.7%

# Methodology

## Memorandum of Understanding Survey Requirement

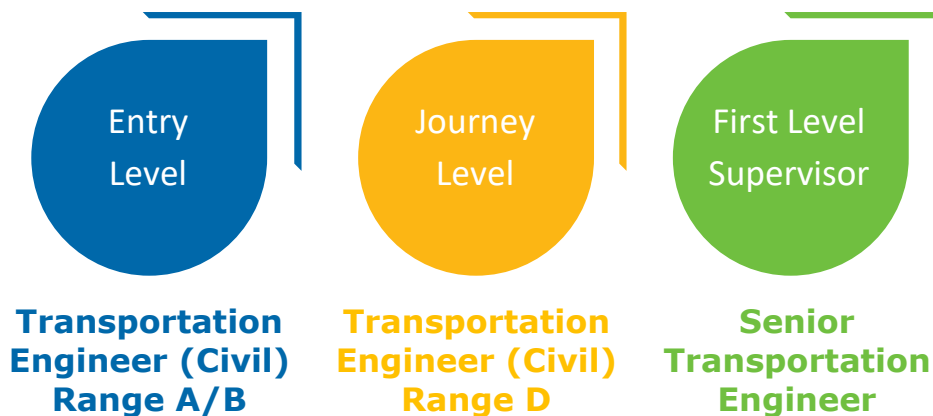
This salary survey was initiated and completed based on the requirements outlined in Article 3.1 of the MOU effective July 2, 2003 through July 2, 2008. Over time the Department and PEGC agreed to a detailed methodology. By the terms of the current MOU<sup>1</sup> (effective July 1, 2022 through June 30, 2025), the surveyed agencies and benchmark comparisons may only be changed upon mutual agreement between the Department and PEGC.

MOU, Article 3.1, requires the Department to:

- Annually survey the 18 public agencies and 10 University of California campuses used in the December 2002 survey.
- Calculate the salary lead or lag based on the weighted average of maximum salaries of employees in the surveyed organization's previously agreed upon classifications.<sup>2</sup>

## State of California's Benchmark Job Classifications

For this survey, the required three benchmarks for the state are:



<sup>1</sup> Attachment 1 displays Article 3.1 in the current MOU (effective July 1, 2022 through June 30, 2025).

<sup>2</sup> Attachment 2 displays the surveyed organizations, their surveyed job classifications, and the minimum and maximum salaries of those job classifications.

# Survey Lag Calculation

The agreed upon methodology requires a comparison to be made between the State of California's maximum salary to the weighted average maximum salary for the surveyed organizations.

There are two parts to the survey lag calculation. The first part weights the maximum salary of each surveyed organization (excluding state employee counts) by the total number of engineers in the comparable classification(s) in each organization. This is done separately for the entry level, journey level, and first level supervisor categories, resulting in a separate weighted average salary for each level.

The second part of the lag computation compares the weighted average salary for the surveyed organizations with the maximum salary of the state benchmark engineer classification. The percentage difference is the survey lag. A separate lag is computed for entry level, journey level, and first level supervisors.

To illustrate how the lag is calculated the table below uses fictitious salary, incumbent counts, and organizations.

**Table 2: Simplified Illustration of Survey Lag Calculation**

Surveyed Organization	Entry Level Maximum Salary A	No. of Engineers in Survey Class B	Product = A x B
Organization A	\$7,000	135	\$945,00
Organization B	\$8,500	25	\$212,500
Total		160	\$1,157,500
Weighted Average Salary	\$7,234 <sup>1</sup>		
State of California Salary	\$6,900		
State Salary Lag	\$334		
State Salary Lag Percent	4.8% <sup>2</sup>		

<sup>1</sup> Calculation is \$1,157,500/160

<sup>2</sup> Calculation is \$7,234 less \$6,900 divided by \$7,234, rounded to one decimal

# Lag Calculation Anomalies

There are two unique anomalies affecting the lag calculation.

The first is a few of the surveyed organizations use two classifications for either entry or journey level. Five surveyed organizations used two classifications for the entry level, and one surveyed organization used two classifications for the journey level.

For those organizations using two classifications for a single level, the Department combined the incumbent counts for the two classifications, and then weighted the survey using the higher-salaried classification by the combined incumbent count.

The second anomaly affecting the lag calculation is the additional pay that the City of San Diego provides their engineers for possessing a state certification as a Registered Engineer.

The City of San Diego pays an additional 15 percent of salary to its employees in the journey level and first level supervisor classifications for possessing state certification as a Registered Civil Engineer. To compute the survey's salary lag, 15 percent of pay was added to the maximum salary, and then was weighted by an incumbent count.

PECG and the Department agreed on the application of the two anomalies for the survey methodology.

# Survey Results

## Salary Lag for Entry Level, Journey Level, and First Level Supervisors

The survey results for the state’s three benchmark job classifications are displayed below.

**Table 3: Display of Survey Lags\***

Level of Work	Entry Level	Journey Level	First Level Supervisor
State Benchmark Classification	Transportation Engineer (Civil) Range A/B	Transportation Engineer (Civil) Range D	Senior Transportation Engineer, Caltrans
Lag for State	2.6%	3.8%	1.7%

\*Attachment 3 provides the detail on the lag computations.

As agreed upon in the current MOU, rank and file civil service job classifications in Unit 9 are not automatically entitled to salary increases to compensate for any salary disparity (or “lag”) between Unit 9 salaries and benchmark comparisons used in this survey.

Salary Survey Text from  
Unit 9 Memorandum of Understanding  
(2022-2025)

**ARTICLE 3**  
**SALARIES AND COMPENSATION**  
**3.1 Salary Parity for Unit 9**

The State and PEGC will continue to complete the salary survey of Unit 9. This survey will include the Professional Engineer Benchmarks that utilize the California public agencies and the University of California included in the department's survey dated December 2002, and the local agency classifications and salary range matches contained therein. The salary survey for those classifications and agencies shall be current data. The agencies and classifications included in the survey shall only be changed upon agreement between CalHR and PEGC.

Salary Methodology:

- A. All steps in each salary range shall be increased by the same percentage. The salary for intermediate classifications in ranges between the Entry and Supervisory levels shall be based on prorating or interpolating the salaries.
- B. All salary increases shall be rounded to the nearest dollar. In no event shall salaries be reduced as a result of this provision. CalHR and PEGC may negotiate salaries above the minimum level on any general, regional, specialty, classification, department, or other basis they choose to agree upon.
- C. Salaries for Unit 9 employees shall be increased as appropriate to correspond to the timing of the salaries received by local agency employees included in the survey.

By mutual agreement CalHR and PEGC can meet to discuss benchmarks and methodologies.

Beginning with the January 2016 salary survey, the calculation of the salary lead or lag for Unit 9 employees shall be based on the weighted average salaries of employees in the classifications in the surveyed agencies as of January 1.

Notwithstanding the above provisions, salary increases pursuant to this section shall not be provided during the term of this MOU.

The most current version of the salary survey will be posted on the CalHR website.



## List of Surveyed Organizations and Entry Level Classifications for 2022 Unit 9 Salary Survey

Organization	Entry Level	Min	Max
<b>State of California</b>	<b>Transportation Engineer A/B</b>	<b>\$5,849</b>	<b>\$8,380</b>
Alameda County	Junior Engineer	\$7,205	\$8,327
Contra Costa County	Engineer - Entry	\$6,622	\$7,871
Fresno County	Engineer II	\$6,441	\$7,830
Los Angeles County	C.E Assistant	\$6,353	\$7,681
	Sr. C.E. Assistant	\$6,353	\$8,109
Orange County	Junior Civil Engineer	\$6,666	\$7,628
Riverside County	Junior Engineer	\$6,130	\$7,504
	Assistant Engineer	\$7,018	\$8,851
Sacramento County	Asst. Civil Eng. Level 2	\$6,969	\$8,893
San Bernardino County	Capital Improvement Project Manager I	\$5,236	\$7,199
San Diego County	Assistant Engineer	\$5,996	\$7,741
Santa Clara County	Assistant Civil Engineer	\$8,269	\$10,055
SF City/County	Junior Engineer	\$7,796	\$9,475
	Assistant Engineer	\$8,803	\$10,701
City of Fresno	Engineer I	\$5,746	\$6,907
City of Los Angeles	Civil Engineer Associate I	\$7,009	\$8,709
City of Oakland	Assistant Engineer, Level 1	\$6,598	\$8,099
City of Riverside	Assistant Engineer	\$6,528	\$7,936
City of Sacramento	Junior Engineer	\$4,781	\$6,728
	Assistant Civil Engineer	\$5,832	\$8,207
City of San Diego	Junior Engineer	\$5,105	\$6,180
	Assistant Engineer	\$5,908	\$7,117
City of San Jose	Engineer I	\$6,864	\$8,684
University of California, Berkeley	Professional Engineer 3	N/A	N/A
University of California, Davis	Professional Engineer 3	\$5,683	\$11,408
University of California, Irvine	Professional Engineer 3	\$6,167	\$11,917
University of California, Los Angeles	Professional Engineer 3	\$5,558	\$14,225
University of California, Merced	Professional Engineer 3	\$5,867	\$10,783
University of California, Riverside	Professional Engineer 3	N/A	N/A
University of California, San Diego	Professional Engineer 3	\$5,283	\$11,900
University of California, Santa Cruz	Professional Engineer 3	\$6,142	\$11,292
University of California, Santa Barbara	Professional Engineer 3	N/A	N/A
University of California, San Francisco	Professional Engineer 3	\$5,475	\$13,942

## List of Surveyed Organizations and Journey Level Classifications for 2022 Unit 9 Salary Survey

Organization	Journey Level	Min	Max
<b>State of California</b>	<b>Transportation Engineer D</b>	<b>\$8,756</b>	<b>\$10,956</b>
Alameda County	Associate Civil Engineer	\$9,840	\$11,957
Contra Costa County	Engineer - Project	\$9,108	\$10,563
Fresno County	Senior Engineer	\$7,776	\$9,451
Los Angeles County	Assoc. Civil Engineer	\$8,414	\$10,742
	Civil Engineer	\$9,379	\$11,972
Orange County	Civil Engineer	\$9,207	\$10,549
Riverside County	Associate Civil Engineer	\$8,035	\$10,067
Sacramento County	Associate Civil Engineer	\$8,712	\$10,590
San Bernardino County	Capital Improvement Project Manager II	\$6,171	\$8,495
San Diego County	Civil Engineer	\$7,576	\$9,306
Santa Clara County	Associate Civil Engineer	\$9,861	\$11,986
SF City/County	Associate Engineer	\$10,246	\$12,454
City of Fresno	Professional Engineer	\$7,482	\$9,067
City of Los Angeles	Civil Engineer	\$8,058	\$11,780
City of Oakland	Civil Engineer	\$8,910	\$10,939
City of Riverside	Associate Engineer	\$7,543	\$10,107
City of Sacramento	Associate Civil Engineer	\$7,079	\$9,961
City of San Diego	Associate Engineer	\$7,822	\$9,445
City of San Jose	Associate Engineer	\$8,301	\$10,509
University of California, Berkeley	Professional Engineer 4	N/A	N/A
University of California, Davis	Professional Engineer 4	\$6,150	\$12,992
University of California, Irvine	Professional Engineer 4	\$6,717	\$13,567
University of California, Los Angeles	Professional Engineer 4	\$6,125	\$16,042
University of California, Merced	Professional Engineer 4	N/A	N/A
University of California, Riverside	Professional Engineer 4	N/A	N/A
University of California, San Diego	Professional Engineer 4	\$5,917	\$13,333
University of California, Santa Cruz	Professional Engineer 4	\$6,800	\$12,717
University of California, Santa Barbara	Professional Engineer 4	\$6,083	\$13,425
University of California, San Francisco	Professional Engineer 4	\$6,142	\$15,625

## List of Surveyed Organizations and First Level Supervisor Classifications for 2022 Unit 9 Salary Survey

Organization	First Supervisory Level	Min	Max
<b>State of California</b>	<b>Sr. Transportation Engineer</b>	<b>\$10,311</b>	<b>\$12,905</b>
Alameda County	Supervising Civil Engineer	\$11,333	\$13,782
Contra Costa County	Associate Civil Engineer	\$8,054	\$10,831
Fresno County	Supervising Engineer	\$8,554	\$10,397
Los Angeles County	Senior Civil Engineer	\$10,454	\$13,344
Orange County	Senior Civil Engineer	\$10,549	\$12,095
Riverside County	Senior Civil Engineer	\$8,597	\$11,244
Sacramento County	Senior Civil Engineer	\$10,687	\$11,782
San Bernardino County	Capital Improvement Project Manager III	\$6,800	\$9,367
San Diego County	Senior Civil Engineer	\$8,786	\$10,800
Santa Clara County	Senior Civil Engineer	\$11,549	\$14,074
SF City/County	Senior Engineer	\$13,732	\$16,688
City of Fresno	Supervising Professional Engineer	\$8,600	\$10,428
City of Los Angeles	Senior Civil Engineer	\$9,474	\$13,850
City of Oakland	Civil Engineer, Supervisor	\$10,952	\$13,447
City of Riverside	Principal Engineer	\$9,226	\$13,631
City of Sacramento	Supervising Engineer	\$9,902	\$12,993
City of San Diego	Senior Civil Engineer	\$9,017	\$10,899
City of San Jose	Senior Engineer	\$9,975	\$12,617
University of California, Berkeley	Professional Engineer 5	N/A	N/A
University of California, Davis	Professional Engineer 5	\$6,608	\$14,808
University of California, Irvine	Professional Engineer 5	\$7,242	\$15,458
University of California, Los Angeles	Professional Engineer 5	\$6,742	\$18,058
University of California, Merced	Professional Engineer 5	N/A	N/A
University of California, Riverside	Professional Engineer 5	N/A	N/A
University of California, San Diego	Professional Engineer 5	\$6,575	\$14,992
University of California, Santa Cruz	Professional Engineer 5	\$7,533	\$14,317
University of California, Santa Barbara	Professional Engineer 5	\$6,617	\$15,242
University of California, San Francisco	Professional Engineer 5	\$6,875	\$17,491

**Computation of Weighted Average Salary and Lag  
for 2022 Unit 9 Salary Survey**

	Entry Level			Journey Level			First Supervisory Level		
A	B	C	D	E	F	G	H	I	J
Jurisdiction	Salary Maximum	# of Inc.	Cal. Of Weighted Avg. Max =B*C	Salary Maximum	# of Inc.	Cal. Of Weighted Avg. Max =E*F	Salary Maximum	# of Inc.	Cal. Of Weighted Avg. Max =H*I
Alameda County	\$8,327	2	\$16,654	\$11,957	6	\$71,739	\$13,782	3	\$41,345
Contra Costa County	\$7,871	7	\$55,100	\$10,563	1	\$10,563	\$10,831	7	\$75,820
Fresno County	\$7,830	4	\$31,320	\$9,451	4	\$37,804	\$10,397	5	\$51,985
Los Angeles County	\$8,109	148	\$1,200,132	\$11,972	446	\$5,339,512	\$13,344	111	\$1,481,154
Orange County	\$7,628	0	\$0	\$10,549	50	\$527,454	\$12,095	21	\$253,999
Riverside County	\$8,851	31	\$274,381	\$10,067	17	\$171,139	\$11,244	15	\$168,660
Sacramento County	\$8,893	79	\$702,560	\$10,590	81	\$857,763	\$11,782	48	\$565,512
San Bernardino County	\$7,199	2	\$14,397	\$8,495	5	\$42,475	\$9,367	5	\$46,835
San Diego County	\$7,741	42	\$325,125	\$9,306	30	\$279,188	\$10,800	30	\$324,012
Santa Clara County	\$10,055	11	\$110,602	\$11,986	12	\$143,834	\$14,074	10	\$140,736
SF City/County	\$10,701	252	\$2,696,652	\$12,454	202	\$2,515,708	\$16,688	100	\$1,668,767
City of Fresno	\$6,907	2	\$13,814	\$9,067	9	\$81,603	\$10,428	6	\$62,568
City of Los Angeles	\$8,709	53	\$461,559	\$11,780	130	\$1,531,368	\$13,850	32	\$443,211
City of Oakland	\$8,099	34	\$275,360	\$10,939	20	\$218,789	\$13,447	7	\$94,129
City of Riverside	\$7,936	2	\$15,872	\$10,107	7	\$70,749	\$13,631	12	\$163,572
City of Sacramento	\$8,207	19	\$155,933	\$9,961	17	\$169,337	\$12,993	11	\$142,920
City of San Diego	\$7,117	339	\$2,412,663	\$9,445	92	\$868,935	\$10,899	69	\$752,000
City of San Jose	\$8,684	28	\$243,152	\$10,509	145	\$1,523,834	\$12,617	39	\$492,060
UC - Berkeley	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
UC - Davis	\$11,408	7	\$79,858	\$12,992	5	\$64,958	\$14,808	0	\$0
UC - Irvine	\$11,917	1	\$11,917	\$13,567	1	\$13,567	\$15,458	1	\$15,458
UC - Los Angeles	\$14,225	5	\$71,125	\$16,042	0	\$0	\$18,058	0	\$0
UC - Merced	\$10,783	1	\$10,783	\$0	0	\$0	\$0	0	\$0
UC - Riverside	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
UC - San Diego	\$11,900	0	\$0	\$13,333	3	\$40,000	\$14,992	0	\$0
UC - Santa Cruz	\$11,292	1	\$11,292	\$12,717	1	\$12,717	\$14,317	0	\$0
UC - Santa Barbara	\$0	0	\$0	\$13,425	0	\$0	\$15,242	0	\$0
UC - San Francisco	\$13,942	2	\$27,883.34	\$15,625	1	\$15,625	\$17,491	0	\$0
		1,072	\$9,218,134		1,285	\$14,608,661		532	\$6,984,743
Weighted Average			\$8,599			\$11,3691			\$13,129
State of California			\$8,380			\$10,956			\$12,905
State Lag - \$\$\$			\$219			\$413			\$224
State Lag - %			2.6%			3.8%			1.7%